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Motor Transportation of Livestock in Ohio

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MOTOR TRANSPORTATION OF LIVESTOCK IN OHIO

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INTRODUCTION

Each year during the past decade terminal markets have been obtaining a larger percentage of total receipts by truck. In 1922 at 16 representative markets[1] of the country, the motor truck transported 8.3 per cent of the hogs, 2.8 per cent of the cattle, 9.4 per cent of the calves, and 6.2 per cent of the sheep received at these markets. During 1932 (10 years later), the percentages for truck receipts were 54.6 per cent of the hogs, 34.6 per cent of the cattle, 52.9 per cent of the calves, and 21.6 per cent of the sheep. The largest increases have been in the receipts of hogs and calves. At Cincinnati the truck receipts of hogs have increased from 21.4 per cent in 1922 to 48.9 per cent in 1932. The percentages for 1922 and 1932, respectively, were 10.1 per cent and 39.1 per cent for cattle, 36.5 per cent and 72.9 per cent for calves, and 16.3 per cent and 62.7 per cent for sheep.

A similar increase in truck receipts has occurred at Cleveland, and from 1922 to 1932 the percentages for hogs increased from 2.5 to 48.2 per cent, for cattle from 4.9 per cent to 38.3 per cent, for calves from 9.2 per cent to 74.5 per cent, and for sheep from 7.3 per cent to 54.2 per cent.

Because the past decade has shown a very large increase in the receipts of livestock by truck at terminal markets, the trucker who transports this livestock from the farm was made the basis of this study.

TYPE OF STUDY

Specific areas in Ohio were selected—one in the Cincinnati territory, one in the Cleveland territory, and one in rail territory about midway between the other two, Figure 1. This last area has some trucking both to Cleveland and to Cincinnati. A fourth area nearer Cleveland was also selected. These areas are designated throughout the study as Preble, Logan, Crawford, and New London.

TABLE 1.—The Amount of Livestock on Farms, January 1, 1932, the Number and Size of Farms in 1930 for Crawford, Logan, and Preble Counties, and the Average per County for the State

	Crawford	Logan	Preble	Average per county for Ohio
Hogs on farms*	33,400	30,900	65,700	23,613
Cattle on farms*	19,600	19,600	20,600	18,295
Sheep on farms*	39,600	59,600	10,100	23,920
Number of farms†	2,121	2,450	2,769	2,492
Size of farms†	109.5	105.6	93.4	98.1

*Source: Ohio Agricultural Statistics.
†Source: 1930 Census.

These areas are typical of the livestock sections of Ohio and were selected because they would represent the livestock trucking situation as it is in Ohio at the time of the study (the summer of 1932). Table 1 presents information

[1]As reported by Bureau of Agricultural Economics, U. S. Department of Agriculture.

concerning these counties, as compared with the county average for the State (county average was obtained by dividing the total amount of trucking in the State by the number of counties, or 88.)

Fig. 1.—The areas selected in Ohio to study local livestock trucking

Both farmers and truckers were interviewed. Two or three farmers were interviewed in each township; in all, 117 farmers were visited. From these men the names and location of every trucker within the respective areas were obtained. The truckers were then interviewed and information concerning livestock trucking obtained. One hundred and thirteen truckers owning 128 trucks furnished information. Practically all of the important truckers in the areas were interviewed. Some of the smaller ones were omitted for various reasons, the chief one being that they were unable in many instances to give information which was representative of the livestock trucker. Also, some truckers and some farmers refused to give information. The information obtained from this research presents the situation with respect to livestock trucking as it exists in the country where the livestock is produced rather than at the point of destination.

TYPE OF TRUCKS OPERATED BY LIVESTOCK TRUCKERS

In gathering these data in the four selected areas, information was obtained on the size of trucks, disclosing considerable variation, Table 2.

This table shows that as an average of the entire area the most common truck is the 1½-ton truck, with the 2-ton truck next in importance. In fact, these two sizes accounted for 77 per cent of all the trucks.

TABLE 2.—The Rated Capacity of Trucks Transporting Livestock

Size	Crawford	Logan	Preble	New London	Total
	Number of trucks				
1-ton	1	5	7	3	16
1½-ton	20	16	28	4	68
1¾-ton	.....	.....	1	.....	1
2-ton	5	7	17	2	31
2½-ton	.....	.....	2	.....	2
3-ton	4	1	2	.....	7
3-ton semi-trailer	.....	1	1	.....	2
5-ton semi-trailer	.....	1	.....	.....	1
Total	30	31	58	9	128
	Percentage of trucks				
1-ton	3.3	16.2	12.0	33.3	12.5
1½-ton	66.7	51.6	48.3	44.5	53.1
1¾-ton	.....	.....	1.7	.....	0.8
2-ton	16.7	22.6	29.3	22.2	24.2
2½-ton	.....	.....	3.5	.....	1.6
3-ton	13.3	3.2	3.5	.....	5.4
3-ton semi-trailer	.....	3.2	1.7	.....	1.6
5-ton semi-trailer	.....	3.2	.....	.....	0.8
Total	100.0	100.0	100.0	100.0	100.0

Ten of the 128 trucks rated as 3-ton or heavier and there was one 5-ton semi-trailer. These trucks have a very large hauling capacity and can haul as much as, or more than, an ordinary railroad livestock car.

Although most of the truckers favored the 1½-ton and 2-ton trucks, there was considerable difference in the size of racks, Table 3. The greatest number of trucks had racks of from 90 to 100 square feet, or a rack about 8 feet wide by 12 feet long. The next group had racks having 70 to 80 square feet; these racks usually were 7 by 10 feet or 7½ by 10 or some other dimension.

A rack under 70 square feet must be considered small; nevertheless, one-third of all the trucks in the area studied belonged to this group. Trucks having livestock racks of over 100 square feet are large trucks. Of this group, 11 per cent was in this size class; this means that the racks were more than 12 feet long. In Ohio, as is common in most states, no vehicle may have a body or rack wider than 8 feet.

Except in the case of cattle, the size of rack does not determine the size of load which may be hauled for a number of the trucks are equipped with double decks, or at least part of a double deck. Of the truckers interviewed, the one operating the largest truck in the area had two-thirds of his truck equipped with a triple deck and the balance with a double deck.

There were more trucks in the group equipped with two full decks than in any other group, for 40.8 per cent of the trucks was thus equipped. Most of the trucks, 71.2 per cent, were equipped with some kind of an extra deck so that they could haul a larger load whenever necessary. Many of the truckers hauling to the terminal markets always tried to load a full load, which meant utilizing more than one deck, except when cattle were hauled. On the other hand, the men trucking locally very seldom used more than one deck. They preferred to make an extra trip rather than use the extra deck, although many were so equipped.

TABLE 3.—The Size of Racks, in Square Feet of Floor Space, of Trucks Transporting Livestock

Size	Crawford	Logan	Preble	New London	Total
			Number of trucks		
40— 49	1	3	3	.....	7
50— 59	1	2	9	2	14
60— 69	5	3	10	4	22
70— 79	9	7	8	.....	24
80— 89	1	6	11	2	20
90— 99	8	3	15	1	27
100—109	1	3	.....	.....	4
110—119	1	1	.....	.....	2
120—129	2	1	1	.....	4
130—139	1	1	.....	.....	2
140—149	.....	.....	1	.....	1
150—159	.....	.....	.....	.....	.....
160—over	.....	1*	.....	.....	1
Total	30	31	58	9	128
			Percentage of trucks		
40— 49	3.3	9.7	5.2	.....	5.5
50— 59	3.3	6.5	15.5	22.2	10.9
60— 69	16.7	9.7	17.2	44.5	17.2
70— 79	30.0	22.6	13.8	.....	18.7
80— 89	3.3	19.3	19.0	22.2	15.6
90— 99	26.7	9.7	25.9	11.1	21.1
100—109	3.3	9.7	.....	.....	3.1
110—119	3.3	3.2	.....	.....	1.6
120—129	6.7	3.2	1.7	.....	3.1
130—139	3.4	3.2	.....	.....	1.6
140—149	.....	.....	1.7	.....	0.8
150—159	.....	.....	.....	.....	.....
160—over	.....	3.2	.....	.....	0.8
Total	100.0	100.0	100.0	100.0	100.0

*216 sq. ft.

The trucks observed were of all kinds and ages. Some were almost new and in good condition; others were practically worn out. Table 4 shows that most of the trucks were from 2 to 4 years old, the average being 3.6 years. There were a few (20.1 per cent) over 5 years old. In fact, truckers realize that if they are to get the business, against the keen competition existing in livestock trucking today, they must have good equipment that will move the livestock to its destination on time. A livestock farmer needs only about one experience with a broken down truck, and he will insist on a good truck.

TABLE 4.—The Age of Trucks Transporting Livestock

Years	Crawford	Logan	Preble	New London	Total
	Number of trucks				
Less than 1	4	1	3	.....	8
1—1.9	6	8	7	1	22
2—2.9	11	2	11	2	26
3—3.9	3	8	13	3	27
4—4.9	1	3	12	3	19
5—5.9	3	4	4	.....	11
6—6.9	.....	5	4	.....	9
7—7.9	1	.....	2	.....	3
8—8.9	.....	.....	.....	.....	.....
9—9.9	.....	.....	.....	.....	.....
10 and over	1	.....	2	.....	3
Total number of trucks	30	31	58	9	128
Average age of trucks	3.0	3.7	3.9	3.4	3.6
	Percentage of trucks				
Less than 1	13.4	3.2	5.2	.....	6.3
1—1.9	20.0	25.7	12.1	11.1	17.2
2—2.9	36.7	6.4	19.0	22.3	20.2
3—3.9	10.0	25.7	22.4	33.3	21.1
4—4.9	3.3	10.0	20.7	33.3	14.8
5—5.9	10.0	12.9	6.9	.....	8.6
6—6.9	.....	16.1	6.9	.....	7.0
7—7.9	3.3	.....	3.4	.....	2.4
8—8.9	.....	.....	.....	.....	.....
9—9.9	.....	.....	.....	.....	.....
10 and over	3.3	.....	3.4	.....	2.4
Total	100.0	100.0	100.0	100.0	100.0

CLASSIFICATION OF TRUCKERS TRANSPORTING LIVESTOCK

The residences of the livestock truckers were found to be about equally divided between town and farm (49.6 per cent in town and 50.4 per cent on the farm). Although some of the towns were very small and may be considered as country, nevertheless they were included in the town classification. Likewise, many living on the farm did very little actual farm work. The analysis showed that 67.9 per cent of the truckers transporting livestock in Crawford County was farmers; whereas in Preble County only 38 per cent was thus engaged. In the other areas the numbers were about equal. There has been livestock trucking in Preble County longer than in the other areas, and more people may have depended upon this type of business for a living. This may account for the difference in the two areas.

The classification of truckers is further shown in Table 5. Throughout the four areas 40 per cent of the 113 truckers was farmer haulers on a part-time basis. Only about one-third of the group could be rated as commercial haulers. A large number of livestock buyers operated trucks; that is, they preferred to buy the livestock from the farmer rather than haul it for rates. This last group was largest in the New London area and smallest in the Preble territory. As a class, more farmers were trucking livestock from the farms, either locally or to the markets, than any other group.

Trucks were found operating in different ways in these four territories. For the entire territory, 10.3 per cent was found to be operating as contract carriers, 2.6 per cent operated cooperatively owned trucks, and 19.9 per cent was P. U. C. O. operators. This last group is licensed by the Public Utilities Commission of Ohio as common carriers in their territory. The balance of the group, or more than two-thirds, was operating on a different basis, either buying livestock outright, taking title to avoid the P. U. C. O., or operating independently of the P. U. C. O. Many belong to the latter class, because they feel that the P. U. C. O. offers them nothing, is expensive, and gives nothing in return. Furthermore, this group is increasing in size.

TABLE 5.—The Classification of Truckers Transporting Livestock

Kind	Crawford	Logan	Preble	New London	Total
	Number of truckers				
Commercial	3	6	24	1	34
Part commercial	1	.....	3	.....	4
Farmer hauler (part time)	15	10	17	3	45
Farmer hauler (full time)	1	.....	.....	.....	1
Livestock buyer	5	10	6	5	26
Cooperative trucks	3	.....	.....	.....	3
Total	28	26	50	9	113
	Percentage of truckers				
Commercial	10.7	23.0	48.0	11.1	30.0
Part commercial	3.6	.....	6.0	.....	3.5
Farmer hauler (part time)	53.6	38.5	34.0	33.3	40.0
Farmer hauler (full time)	3.6	.....	.....	.....	0.9
Livestock buyer	17.8	38.5	12.0	55.6	23.0
Cooperative trucks	10.7	.....	.....	.....	2.6
Total	100.0	100.0	100.0	100.0	100.0

It has been thought by some that many have turned to trucking during 1931 and 1932 because of the depression and because many were unemployed. Table 6 would seem to indicate that this is not the situation to any great extent. Less than 10 per cent of all the truckers from whom information was obtained had been trucking livestock less than 2 years when they were interviewed. In fact, more than 60 per cent had been trucking livestock 5 years or longer. It would seem that more of the truckers have taken up trucking because of the increase in this method of transporting livestock than because of unemployment. This would indicate that such truckers may not quickly turn to some other occupation if an opportunity is presented.

Some writers and speakers on trucking problems have pointed out that many of the present truckers would leave the trucking field as business conditions improve. Only about 10 per cent of the present truckers indicated that they would quit when they could get something else to do; more than 85 per cent stated they expected to stay in the trucking business. It is fascinating to many. Table 7 shows that the largest percentage of these men was farmers or livestock buyers or both before becoming truckers and had not come in from other fields. Some had been truck drivers or were in other kinds of trucking. Only the group listed as "other activities" brings in the men unrelated to trucking, such as carpenters, automobile mechanics, street car conductors, etc. This latter group will no doubt shift from trucking when conditions offer an opportunity sooner than will the other groups.

TABLE 6.—The Number of Years Truckers Have Been Transporting Livestock

Years	Crawford	Logan	Preble	New London	Total
			Number of truckers		
Less than 1	2	2	1	.....	5
1— 1.9	1	2	2	.....	5
2— 2.9	5	3	2	1	11
3— 3.9	6	.....	3	.....	9
4— 4.9	4	2	3	1	10
5— 5.9	3	.....	4	1	8
6— 6.9	2	2	3	2	9
7— 7.9	1	4	3	.....	8
8— 8.9	.....	2	3	.....	5
9— 9.9	.....	1	1	.....	2
10—10.9	1	1	7	1	10
11—11.9	.....	2	1	.....	3
12—12.9	1	2	5	1	9
13—13.9	.....	1	2	.....	3
14—14.9	.....	.....	5	.....	5
15 and over	1	1	2	1	5
Total number of truckers	27	25	47	8	107
Average number years trucked	4.8	7.1	9.0	8.0	7.4
			Percentage of truckers		
Less than 1	7.4	8.0	2.1	.....	4.7
1— 1.9	3.7	8.0	4.3	.....	4.7
2— 2.9	18.6	12.0	4.3	12.5	10.3
3— 3.9	22.2	.....	6.4	.....	8.4
4— 4.9	14.8	8 0	6.4	12.5	9.3
5— 5.9	11.1	.....	8.5	12.5	7.5
6— 6.9	7.4	8.0	6.4	25.0	8.4
7— 7.9	3.7	16.0	6.4	.....	7.5
8— 8.9	.....	8.0	6.4	.....	4.7
9— 9.9	.....	4.0	2.1	.....	1.8
10—10.9	3.7	4.0	14.8	12.5	9.3
11—11.9	.....	8.0	2.1	.....	2.8
12—12.9	3.7	8.0	10.6	12.5	8.4
13—13.9	.....	4.0	4.3	.....	2.8
14—14.9	.....	.....	10.6	.....	4.7
15 and over	3.7	4.0	4.3	12.5	4.7
Total	100.0	100.0	100.0	100.0	100.0

TABLE 7.—The Occupations of Truckers Before They Began Trucking Livestock

Occupation	Crawford	Logan	Preble	New London	Total
			Number of truckers		
Farmer	13	10	31	3	57
Livestock buyer	6	4	2	2	14
Farmer and livestock dealer	.....	3	3	.....	6
Truck driver—did general trucking	.....	5	1	1	7
Other activities*	2	4	10	1	17
Total	21	26	47	7	101
			Percentage of truckers		
Farmer	61.9	38.5	65.9	42.8	56.5
Livestock buyer	28.6	15.4	4.3	28.6	13.9
Farmer and livestock dealer	.....	11.5	6.4	.....	5.9
Truck driver—did general trucking	.....	19.2	2.1	14.3	6.9
Other activities*	9.5	15.4	21.3	14.3	16.8
Total	100.0	100.0	100.0	100.0	100.0

*Includes implement dealer, carpenter, feed store and coal yard operator, street car conductor, tinner, automobile mechanic, thresher, housewife, etc.

All truckers seemed to drift into the trucking game, some not knowing just why they started. The largest percentage believed they could make some money, Table 8. Some had a farm truck and started to haul for their neighbors. Others were livestock buyers and had to get a truck to stay in business. Some were livestock traders and needed a truck. It was more or less an evolutionary process.

TABLE 8.—Reasons Given by Truckers for Getting into the Livestock Trucking Business

Reason	Crawford	Logan	Preble	New London	Total
	Number of truckers				
Believed he could make some money	3	3	21	2	29
Had farm truck and just started	4	4	6	.....	14
Formerly buyer and had to start trucking or lose business	6	7	.....	1	14
Traded a lot and thus bought truck to haul his livestock	1	1	3	2	7
Cooperatives started him	2	5	.....	.....	7
Other reasons*	7	4	10	2	23
Total	23	24	40	7	94
	Percentage of truckers				
Believed he could make some money	13.1	12.5	52.5	28.6	30.9
Had farm truck and just started	17.4	16.7	15.0	.....	14.9
Formerly buyer and had to start trucking or lose business	26.1	29.1	.....	14.2	14.9
Traded a lot and thus bought truck to haul his livestock	4.3	4.2	7.5	28.6	7.4
Cooperatives started him	8.7	20.6	.....	.....	7.4
Other reasons*	30.4	16.7	25.0	28.6	24.5
Total	100.0	100.0	100.0	100.0	100.0

*Other reasons included: Don't know why, had school truck and lost route, took in truck on a mortgage, truck driver, had truck to haul coal and feed, etc.

KIND OF TRUCKERS OPERATING

After the investigators had interviewed the farmers and truckers in an area, they went to the bankers in the same section and obtained their opinions concerning these truckers.

The bankers were questioned concerning the honesty and integrity of the truckers. This is important when farmers trust the trucker with their livestock since any number of things may happen; for example, a wreck may occur, resulting in loss, or the trucker could purposely mix the livestock, or, when the commission firm settled with the trucker and the trucker in turn with the farmer, discrepancies of one kind or another might creep in. It is believed that the bankers answered the questions fully and gave unbiased information. Some bankers may have rated truckers more favorably than they would to some of their customers, but this is doubtful. Table 9 gives the bankers' opinions of the truckers. This table shows that nearly all of the truckers known by the bankers were considered honest; less than 7 per cent was considered otherwise.

The local bankers counted truckers having a financial rating of over $500 as good, those with less than $100 as poor. In examining Table 9 one must conclude that a number of truckers who were operating, even though they may

be honest and are the type who would want to do the right thing, are not as responsible financially as they should be. These are factors that farmers should consider in selecting their trucker.

TABLE 9.—Bankers' Rating of Livestock Truckers on Reputation and Financial Rating

Area	Bankers' financial rating				Bankers' rating of reputation		
	Good	Average	Poor	Total	Honest	Otherwise	Total
Crawford	16	5	5	26	24	2	26
Logan	14	6	3	23	24	.....	24
Preble	18	12	11	41	37	4	41
Total	48	23	19	90	85	6	91

Another point discussed with the bankers was the position of the trucker in the community. Was he well liked by the people? Incidentally, we rated each trucker on this point before talking with the bankers. This information is summarized in Table 10. The bankers rated the truckers much higher than we did, stating that 86 out of 91 were well liked, whereas we included only 38. However, we believed 45 more were average. Adding these to the 38 would give 83 out of the 91; this figure would compare favorably with the bankers' opinion.

TABLE 10.—The Position of Livestock Truckers in the Community, as Reported by the Bankers and Interviewers of This Study, in Three Selected Areas

	Bankers' opinion			
	Well liked	Average	Not liked	Total
Bankers' opinion ☞	86	5	.....	91
Interviewers' opinion:				
Well liked	38	.....	.....	38
Average	45	4	.....	49
Not liked	3	1	.....	4

Another query put to the bankers concerned the business ability of the truckers. In interviewing the truckers the investigators also formed an opinion of their business ability, Table 11. This opinion varied considerably

TABLE 11.—The Business Ability of Livestock Truckers, as Reported by Bankers and as Estimated by Interviewers of this Study, in Three Selected Areas

	Bankers' opinion			
	Above average	Average	Below average	Total
Bankers' ohinion ☞	21	63	6	90
Interviewers' opinion:				
Above average	13	14	1	28
Average	7	42	2	51
Below average	1	7	3	11

from that of the bankers who have observed these truckers in their own community and know more concerning their ability. The investigators agreed with the bankers on 13 truckers whom both rated above average, on 42 whom both rated as average, and 3 rated as below average—making 58 out of 90. The bankers believed that slightly less than 25 per cent of the truckers was above average in business ability and about 7 per cent below average. This may indicate that in a long period of low rates most of the truckers would continue to "hang on", although there might be some shift to other lines when the opportunity presented itself.

It is interesting to note how the farmers themselves rated the truckers. The farmers rated 93 per cent of the truckers as good, 4 per cent as average, and only 3 per cent as poor. This would show that the farmers rate the truckers about the same as did the bankers.

TYPE OF LOADS HAULED BY TRUCKERS

The weight of load varies greatly, depending upon conditions, number to be hauled, whether truckers haul locally or to the terminals, and upon the species—that is, whether hogs, cattle, calves, sheep, or mixed. Since the

TABLE 12.—The Average Weight of Loads as Estimated by Trucker Operators Transporting Livestock

Pounds	Crawford	Logan	Preble	New London	Total
		Number of truckers			
0— 999	.....	1	.....	.....	1
1,000— 1,999	.....	1	1	.....	2
2,000— 2,999	1	2	3	2	8
3,000— 3,999	2	6	8	3	19
4,000— 4,999	5	3	9	2	19
5,000— 5,999	5	1	5	.....	11
6,000— 6,999	7	4	6	2	19
7,000— 7,999	2	.....	9	.....	11
8,000— 8,999	1	.....	9	.....	10
9,000— 9,999	4	1	.....	.....	5
10,000—10,999	.....	.....	2	.....	2
11,000—11,999	.....	2	1	.....	3
12,000—over	.....	2	1	.....	3
Total number of truckers	27	23	54	9	113
Average weight of load	6,166	5,673	6,166	4,166	5,907
		Percentage of truckers			
0— 999	.....	4.4	.....	.....	0.9
1,000— 1,999	.....	4.4	1.8	.....	1.7
2,000— 2,999	3.7	8.7	5.6	22.2	7.2
3,000— 3,999	7.4	26.0	14.8	33.3	16.9
4,000— 4,999	18.5	13.0	16.7	22.2	16.9
5,000— 5,999	18.5	4.4	9.3	.....	9.7
6,000— 6,999	26.0	17.3	11.1	22.3	16.9
7,000— 7,999	7.4	.....	16.7	.....	9.7
8,000— 8,999	3.7	.....	16.7	.....	8.8
9,000— 9,999	14.8	4.4	.....	.....	4.4
10,000—10,999	.....	.....	3.7	.....	1.7
11,000—11,999	.....	8.7	1.8	.....	2.6
12,000—over	.....	8.7	1.8	.....	2.6
Total	100.0	100.0	100.0	100.0	100.0

truckers had no information on this phase of trucking, they were asked to estimate what they thought was the average weight hauled. This summary is given in Table 12.

This shows that the average weight was higher in Crawford and Preble Counties and somewhat lower in Logan. There was more local trucking in Logan County, which would create a tendency for the loads to average lighter. More truckers indicated average loads of 3000 to 5000 pounds; another group indicated average loads of 6000 to 7000 pounds. Tables 13 and 14 give the weight hauled by truckers when livestock is trucked to local points and to terminal markets. These tables show that the loads for local hauling average more than 40 per cent lighter than those for terminal hauling.

TABLE 13.—The Average Weight of Loads Hauled as Estimated by Trucker Operators Transporting Livestock to Local Points

Pounds	Crawford	Logan	Preble	New London	Total
		Number of truckers			
0— 999	.....	1	.....	.....	1
1,000— 1,999	.....	1	1	.....	2
2,000— 2,999	1	2	3	.....	6
3,000— 3,999	2	7	7	.....	16
4,000— 4,999	3	5	6	.....	14
5,000— 5,999	3	3	1	.....	7
6,000— 6,999	1	3	1	.....	5
7,000— 7,999	.....	.....	.....	.....	.....
8,000— 8,999	.....	.....	.....	.....	.....
9,000— 9,999	.....	.....	.....	.....	.....
10,000—10,999	.....	.....	.....	.....	.....
11,000—11,999	.....	.....	.....	.....	.....
12,000—over	.....	1	.....	.....	1
Total number of truckers	10	23	19	0	52
Average weight of load	4,800	4,434	3,815	.....	4,278
		Percentage of truckers			
0— 999	.....	4.3	.....	.....	1.9
1,000— 1,999	.....	4.3	5.3	.....	3.9
2,000— 2,999	10.0	8.7	15.8	.....	11.5
3,000— 3,999	20.0	30.4	36.7	.....	30.8
4,000— 4,999	30.0	21.8	31.6	.....	26.9
5,000— 5,999	30.0	13.1	5.3	.....	13.5
6,000— 6,999	10.0	13.1	5.3	.....	9.6
7,000— 7,999	.....	.....	.....	.....	.....
8,000— 8,999	.....	.....	.....	.....	.....
9,000— 9,999	.....	.....	.....	.....	.....
10,000—10,999	.....	.....	.....	.....	.....
11,000—11,999	.....	.....	.....	.....	.....
12,000—over	.....	4.3	.....	.....	1.9
Total	100.0	100.0	100.0	0	100.0

Table 15 presents the estimated average weight of loads hauled by the 1½-ton trucks. It is observed there was almost as much variation in weight in this group as in the entire group. A few hauled very light loads; whereas more hauled exceedingly heavy loads on their 1½-ton trucks. About 70 per cent of this group estimated that their loads averaged from 3000 to 6000 pounds.

TABLE 14.—The Average Weight of Loads Hauled as Estimated by Trucker Operators Transporting Livestock Mainly to Terminal Markets

Pounds	Crawford	Logan	Preble	New London	Total
		Number of truckers			
2,000— 2,999				2	2
3,000— 3,999			1	3	4
4,000— 4,999	2		3	2	7
5,000— 5,999	2		4		6
6,000— 6,999	6	1	5	2	14
7,000— 7,999	2	1	9		12
8,000— 8,999	1		9		10
9,000— 9,999	4	1			5
10,000—10,999			2		2
11,000—11,999			1		1
12,000—12,999		1			1
15,000—21,999			1		1
22,000—over		1*			1
Total number of truckers	17	5	35	9	66
Average weight of load	7,088	8,875	7,514	4,166	7,006
		Percentage of truckers			
2,000— 2,999				22.2	3.0
3,000— 3,999			2.9	33.4	6.1
4,000— 4,999	11.8		8.6	22.2	10.6
5,000— 5,999	11.8		11.4		9.1
6,000— 6,999	35.2	20.0	14.2	22.2	21.2
7,000— 7,999	11.8	20.0	25.7		18.2
8,000— 8,999	5.9		25.7		15.2
9,000— 9,999	23.5	20.0			7.6
10,000—10,999			5.7		3.0
11,000—11,999			2.9		1.5
12,000—12,999		20.0			1.5
15,000—21,999			2.9		1.5
22,000—over		20.0			1.5
Total	100.0	100.0	100.0	100.0	100.0

*This trucker was not included when figuring the average.

TABLE 15.—The Average Weight of Load of Trucks as Estimated by the Trucker Operators Transporting Livestock on One and One-half-ton Trucks

Pounds	Crawford	Logan	Preble	New London	Total
		Number of truckers			
1,000—1,999			1		1
2,000—2,999		2		1	3
3,000—3,999	2	5	5	1	13
4,000—4,999	3	4	8	2	17
5,000—5,999	5	2	5		12
6,000—6,999	6		3		9
7,000—7,999	1	1	1		3
8,000—over			2		2
Total number of truckers	17	14	25	4	60
Average weight of load	5,558	4,214	5,060	3,750	4,916
		Percentage of truckers			
1,000—1,999			4.0		1.7
2,000—2,999		14.2		25.0	5.0
3,000—3,999	11.8	35.8	20.0	25.0	21.6
4,000—4,999	17.6	28.6	32.0	50.0	28.3
5,000—5,999	29.4	14.3	20.0		20.0
6,000—6,999	35.3		12.0		15.0
7,000—7,999	5.9	7.1	4.0		5.0
8,000—over			8.0		3.4
Total	100.0	100.0	100.0	100.0	100.0

It is the desire of all truckers to haul a good load, especially when they are hauling on a hundred-weight basis. When they are hauling on a loaded mile or trip basis, weight is not such an important factor.

Not all truckers were able to obtain sufficient livestock to haul an average load every time and thus there was a considerable range in their loads. Approximately 80 per cent of the truckers stated that their lightest loads would vary less than 3000 pounds under their average weight. However, a few who hauled very heavy loads on the average had a very wide range in weights hauled. Likewise, 68 per cent of the truckers stated that their heaviest loads did not exceed their average weight by over 3000 pounds and 86 per cent by 4000 pounds.

Hogs were the most important species of livestock trucked in these four areas. This is shown from the average in Table 16. Only in the New London area was the percentage of hogs lower. Nearly 70 per cent of the truckers indicated that hogs made up from 50 per cent to 80 per cent of their livestock trucking in these four selected areas. This territory was mainly a hog territory, although some cattle, as well as lambs and calves, were marketed.

From the standpoint of the trucker, it is more desirable when he can haul straight loads, but more often he must haul mixed loads, Table 17. This table shows that for Crawford County most of the truckers had less than 30 per cent of their loads straight—that is, loads which consisted only of hogs, cattle, lambs, or calves (very seldom, if ever, the latter). Logan County and Preble County showed a higher tendency for straight loads, more than 50 per cent of the truck loads being straight. In the New London area very few loads were straight. This table brings out the fact that trucking conditions vary greatly from one territory to another, and, consequently, truck operations will vary from territory to territory.

One of the problems which faces the livestock trucker is the number of stops which must be made in order to obtain a truck load. This will vary during the seasons of the year, with the size of loads hauled, and from community to community. The number of stops, or "pick-ups" as they are called by the trucker, is given in Table 18. This shows that less than 10 per cent of the loads for the entire area was obtained at one stop, that over 45 per cent of the truckers secured more than half of the loads hauled at one stop, and that 25 per cent of the truckers make up 70 per cent or more of their loads at one stop.

A slightly different phase of this question is presented in Table 19. The number of stops is adjusted to an average load of 5000 pounds for the truckers hauling principally to the terminal markets. For the four areas, slightly more than 50 per cent of the trucks would secure an average load of 5000 pounds from two or three stops. Only 15 per cent of all truckers was able to obtain loads of 5000 pounds at one stop, and these were all located in Preble County where there are more farmers producing a large number of hogs. In order to obtain a load of 5000 pounds only 15.6 per cent of the truckers had to make more than four stops. The average number of stops was lowest in Preble County and highest in the New London area, which is principally a dairy section.

TABLE 16.—The Percentage that Hogs are of all Livestock Hauled in Truckloads by Truckers Transporting Livestock

Per cent	Crawford	Logan	Preble	New London	Total
Number of truckers					
0— 9.9	.....	1	.....	1	2
10—19.9	.....	1	.....	3	4
20—29.9	.....	1	.....	1	2
30—39.9	1	1	1	2	5
40—49.9	2	3	3	1	9
50—59.9	8	4	4	.....	16
60—69.9	5	3	4	.....	12
70—79.9	3	4	11	1	19
80—89.9	6	6	15	.....	27
90—over	1	1	9	.....	11
Total number of truckers	26	25	47	9	107
Average percentage of hogs	66.2	61.4	76.1	29.4	65.84
Percentage of truckers					
0— 9.9	.....	4.0	.....	11.1	1.9
10—19.9	.....	4.0	.....	33.4	3.7
20—29.9	.....	4.0	.....	11.1	1.9
30—39.9	3.8	4.0	2.1	22.2	4.7
40—49.9	7.7	12.0	6.4	11.1	8.4
50—59.9	30.8	16.0	8.5	.....	15.0
60—69.9	19.2	12.0	8.5	.....	11.2
70—79.9	11.6	16.0	23.4	11.1	17.7
80—89.9	23.1	24.0	31.9	.....	25.2
90—over	3.8	4.0	19.2	.....	10.3
Total	100.0	100.0	100.0	100.0	100.0

TABLE 17.—The Percentage of Loads Which Were Straight Loads Hauled by Truckers

Per cent	Crawford	Logan	Preble	New London	Total
Number of truckers					
0— 9.9	2	.....	.....	1	3
10— 19.9	7	4	.....	4	15
20— 29.9	6	.....	1	2	9
30— 39.9	2	.....	.....	1	3
40— 49.9	1	2	5	.....	8
50— 59.9	2	4	12	.....	18
60— 69.9	2	4	6	1	13
70— 79.9	1	6	7	.....	14
80— 89.9	1	2	10	.....	13
90—100	1	3	5	.....	9
Total number of truckers	25	25	46	9	105
Average percentage of straight loads.	35.0	61.4	68.5	23.9	55.0
Percentage of truckers					
0— 9.9	8.0	.....	.....	11.1	2.9
10— 19.9	28.0	16.0	.....	44.5	14.2
20— 29.9	24.0	.....	2.2	22.2	8.6
30— 39.9	8.0	.....	.....	11.1	2.9
40— 49.9	4.0	8.0	10.9	.....	7.6
50— 59.9	8.0	16.0	26.1	.....	17.1
60— 69.9	8.0	16.0	13.0	11.1	12.4
70— 79.9	4.0	24.0	15.2	.....	13.3
80— 89.9	4.0	8.0	21.7	.....	12.4
90—100	4.0	12.0	10.9	.....	8.6
Total	100.0	100.0	100.0	100.0	100.0

TABLE 18.—The Percentage of all Loads Obtained at One Stop by Truckers

Per cent	Crawford	Logan	Preble	New London	Total
Number of truckers					
0— 9.9	8	1			9
10— 19.9	7	10	1	5	23
20— 29.9	3	3	2	2	10
30— 39.9		1	2	2	5
40— 49.9	2	2	5		9
50— 59.9	1	3	9		13
60— 69.9	1	2	4		7
70— 79.9	2		10		12
80— 89.9		2	5		7
90—100	1	1	5		7
Total number of truckers	25	25	43	9	102
Av. percentage of loads at one stop	27.0	36.6	64.3	21.7	44.6
Percentage of truckers					
0— 9.9	32.0	4.0			8.8
10— 19.9	28.0	40.0	2.3	55.6	22.5
20— 29.9	12.0	12.0	4.7	22.2	9.8
30— 39.9		4.0	4.7	22.2	4.9
40— 49.9	8.0	8.0	11.6		8.8
50— 59.9	4.0	12.0	20.9		12.8
60— 69.9	4.0	8.0	9.3		6.9
70— 79.9	8.0		23.3		11.7
80— 89.9		8.0	11.6		6.9
90—100	4.0	4.0	11.6		6.9
Total	100.0	100.0	100.0	100.0	100.0

TABLE 19.—The Number of Stops Necessary to Obtain an Average Truck Load of 5000 Pounds by Truckers Transporting to Terminal Markets

Number of stops	Crawford	Logan	Preble	New London	Total
Number of truckers					
1			9		9
2	5	2	10		17
3	6	1	6		13
4	4	1	2	3	10
5		1		3	4
6					
7	2			1	3
8				2	2
Total number of truckers	17	5	27	9	58
Average number of stops	3.4	3.2	2.0	5.6	3.1
Percentage of truckers					
1			33.4		15.5
2	29.4	40.0	37.0		29.3
3	35.3	20.0	22.2		22.4
4	23.5	20.0	7.4	33.3	17.2
5		20.0		33.3	6.9
6					
7	11.8			11.1	5.2
8				22.3	3.5
Total	100.0	100.0	100.0	100.0	100.0

ORIGIN OF LOADS

Although several stops must be made to obtain a load of average size, these stops involve some local driving before the trucker finishes his load. The average mileage necessary to pick up a load by the truckers hauling to the terminal markets for all areas was slightly over 11 miles. There was very little difference between areas, the lowest being 9.5 miles in Preble and the highest 14.2 miles in Crawford County. For all areas more than 60 per cent of the truckers drove from 8 to 15 miles to obtain their loads.

TABLE 20.—The Trucking Area in Square Miles from Which Truckers Obtain 50 Per Cent of Their Volume

Square miles	Crawford	Logan*	Preble	New London	Total
		Number of truckers			
0— 9.9	3	1	2	.....	6
10—19.9	7	2	20	6	35
20—29.9	7	3	2	.....	12
30—39.9	2	6	3	1	12
40—49.9	1	.....	2	.....	3
50—59.9	1	1	1	.....	3
60—69.9	.....	1	4	.....	5
70—79.9	2	.....	.....	.....	2
80—89.9	.....	.....	.....	.....	.....
90—99.9	.....	.....	.....	.....	.....
100—over	1	5	.....	.....	6
Total number of truckers	24	19	34	7	84
Average number of square miles	30.0	50.8	25.6	17.9	31.9
		Percentage of truckers			
0— 9.9	12.4	5.3	5.9	.....	7.1
10—19.9	29 2	10.5	58.8	85.7	41.7
20—29.9	29.2	15.8	5.9	.....	14.3
30—39.9	8.3	31.5	8.8	14.3	14.3
40—49.9	4.2	.....	5.9	.....	3.6
50—59.9	4.2	5.3	2.9	.....	3.6
60—69.9	.....	5.3	11.8	.....	5.9
70—79.9	8.3	.....	.....	.....	2.4
80—89.9	.....	.....	.....	.....	.....
90—99.9	.....	.....	.....	.....	.....
100—over	4.2	26.3	.....	.....	7.1
Total	100.0	100.0	100.0	100.0	100.0

*One trucker in Logan County with an area of 900 square miles was omitted.

Directly associated with the number of stops and the miles driven to obtain a truck load of livestock is the amount of time involved to load the truck. The ease with which livestock is handled, the cooperation received from the farmers, whether the livestock is penned waiting for the trucker, and whether loaded at night or daytime are all factors involved in the time necessary to load. As an average for the area, there was not much difference in the time involved, except for the truckers in Preble County. They averaged about ½ hour less than in the other areas, but they averaged less stops to obtain a truck load. It took, on the average, for the three other areas slightly

over 2 hours to get loaded. The modal group for all truckers (the largest percentage for any group, 35.1 per cent) was from 1½ to 2 hours. More than one-third of the truckers were in this group.

The area covered by a trucker is also associated with the point of origin of loads. There are a number of factors which influence the size of the area served by one trucker. Some of the more important are: competition by other truckers, number of truckers operating in a selected area, basis of operation—whether full time or part time—, size of truck, and the density of the livestock. In trying to get some picture of the area covered by truckers we asked each one to describe the territory he served. Many replied with vague answers, such as "all over". The truckers were then asked to indicate how far they went in all four directions to obtain 50 per cent of their volume. Most of the men were able to do this, especially those operating individually who were not under contract to an individual buyer or cooperative association. With this latter group the area covered was more indefinite. Table 20 gives the summary of the estimated area covered from which the 84 truckers secured 50 per cent of their volume.

The average of all groups was about 32 square miles, just a little less than a township. The largest number of truckers of any group (the modal group) was found to be those operating in a territory covering from 10 to 20 square miles. The areas averaged largest in Logan County and smallest in the New London area. This table points out that most livestock truckers operate in a fairly well condensed area and do not scatter their operations over an entire county.

To present this information graphically Figure 2 is presented, giving the areas where truckers obtain 50 per cent of their volume in Crawford, Logan, and Preble Counties.

These four areas were varying distances from the terminal markets; hence, considerable difference in round-trip mileage would be expected.

Logan County was farthest from the terminals, and Preble County was the nearest. This situation will affect rates which will be discussed later. The average round-trip mileage to terminal markets for Crawford County was 201 miles, Logan 308 miles, Preble 100 miles, and New London 130 miles.

In covering the trip to destination the speed of travel is another interesting phase of this trucking problem. In the four areas the truckers from Crawford and New London averaged about the same speed (29 miles per hour) which was considerably higher than those truckers in the Preble and Logan areas (22 miles per hour). This is accounted for largely by the fact that the Logan and Preble truckers haul many more loads during the late afternoon and evening; whereas the truckers in the Crawford and New London territory get up early and drive in the same day. Hence, they must drive faster in order to reach the market on time.

For the four areas more truckers averaged around 24 to 28 miles than any other speed. Some truckers hold to the opinion that fast or speedy driving will ruin the motor sooner than any other abuse. If this is true, it would seem that the truckers in the Preble and Logan areas should have proportionately lower operating costs.

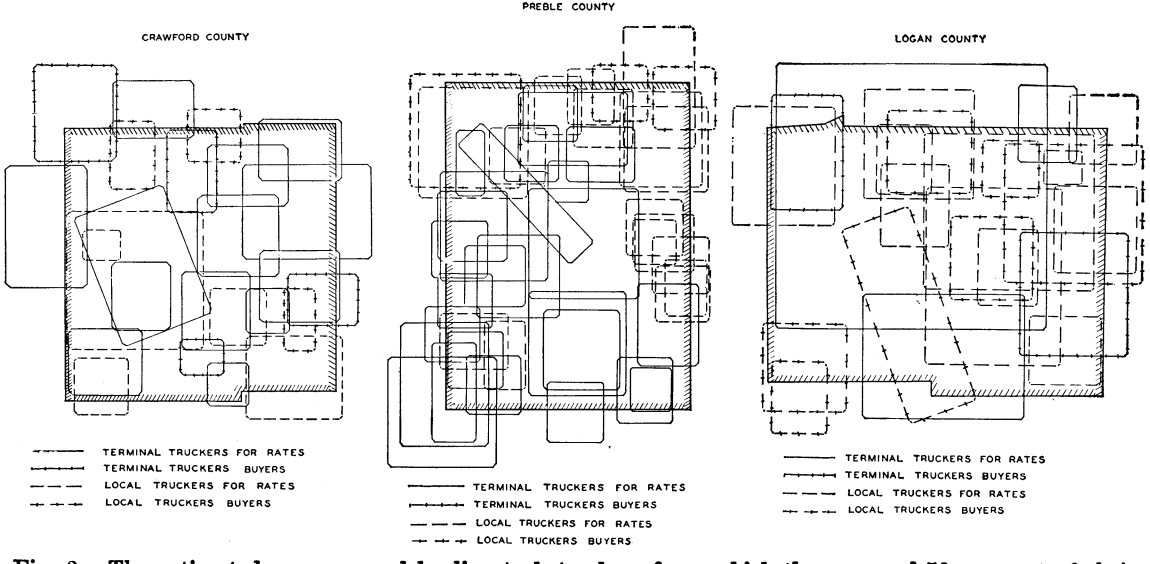

Fig. 2.—The estimated area covered by livestock truckers from which they secured 50 per cent of their volume for Crawford, Logan, and Preble Counties

DESTINATION OF LIVESTOCK TRUCKED

Livestock was trucked to terminal markets, to railroad points, and direct to slaughterers from the farms in the areas studied. This information is presented in Table 21. The terminal markets were getting the largest percentage of the livestock from these areas. In the case of Preble County, a larger percentage was moving to slaughterers than is indicated. One slaughterer buying direct is located in Dayton, and, when the truckers stated they were trucking to Dayton, it was assumed they were trucking to the stockyards when actually, no doubt, some were trucking direct. Some of the livestock delivered to railroad points later went through direct channels.

TABLE 21.—The Destination of Livestock Transported by Truck

Destination	Crawford	Logan	Preble	New London	Total
Terminals:					
Cleveland	62.2	11.4	.....	97.6	18.9
Cincinnati	.....	4.3	63.9	.....	33.5
Dayton	.....	.....	12.4	.....	6.3
Direct to slaughterers	5.7	11.4	0.2	1.7	4.2
Railroad points, etc.	32.1	72.9	23.5	0.7	37.1
Total	100.0	100.0	100.0	100.0	100.0

It was found that the truckers who transported this livestock to the above points obtained most of their trucking income from such hauling; that is, they were essentially livestock truckers, Table 22. Almost 40 per cent declared they received more than 90 per cent of their trucking income from livestock. Of the truckers giving information, those in Crawford County averaged a higher percentage of trucking income from livestock—94.5 per cent; the lowest was in Logan and Preble Counties—74.1 per cent and 75.4 per cent, respectively. The average of all the areas was 80.4 per cent. The table shows that only 11.8 per cent of the truckers obtained less than 50 per cent of their trucking income from livestock.

Of the commodities hauled by truckers (in addition to livestock) grain, feed, and fertilizer were mentioned most frequently, along with a number of miscellaneous articles. This shows that the truckers transporting livestock are essentially hauling agricultural commodities with few exceptions, and they are obtaining their trucking income mainly from livestock hauling.

This is partly due to the fact that anyone hauling livestock must be equipped with rack, loading chutes, etc., and, consequently, must change the rack or make the necessary adjustments to haul other commodities. Also, the trucker must be ready to haul livestock at any time if he wants to continue to truck it, for, if a trucker is not ready or has a route or something else to do, the farmer wanting to sell his livestock will secure some other trucker who is ready to haul it. Consequently, a group of truckers has developed specializing primarily in transporting livestock.

THE HANDLING OF LIVESTOCK BY LIVESTOCK TRUCKERS

During recent years the handling of livestock by trucks has brought forth much discussion. Consequently, in this study an effort was made to obtain some facts from the truckers themselves. Too frequently commission firms and especially truckers fail to identify properly the livestock when it is

TABLE 22.—The Percentage of Trucking Income Derived by Trucker from Transporting Livestock

Per cent	Crawford	Logan	Preble	New London	Total
		Number of truckers			
100	2	1			3
90—99.9	16	4	7	2	29
80—89.9	2	4	14	1	21
70—79.9		1	6	1	8
60—69.9			4		4
50—59.9		5	4		9
40—49.9			4		4
30—39.9			3		3
20—29.9					
10—19.9		1			1
Total number of truckers	20	16	42	4	82
Average percentage of income	94.5	74.1	75.4	87.5	80.4
		Percentage of truckers			
100	10.0	6.3			3.7
90—99.9	80.0	25.0	16.7	50.0	35.3
80—89.9	10.0	25.0	33.3	25.0	25.6
70—79.9		6.3	14.3	25.0	9.7
60—69.9			9.5		4.9
50—59.9		31.1	9.5		11.0
40—49.9			9.5		4.9
30—39.9			7.2		3.7
20—29.9					
10—19.9		6.3			1.2
Total	100.0	100.0	100.0	100.0	100.0

unloaded. This often results in errors, misunderstanding, ill feeling, and loss of money. In Table 23 the methods used by the truckers to identify the livestock are given. A majority of the truckers mark or partition the livestock or use both methods. A few use color markings, and a few try to remember the livestock. Possibly this latter group constitutes the one that causes most of the difficulty with "mix-ups". Farmers should generally see that their livestock is so loaded, partitioned, or marked that no difficulty in identification will be experienced at the destination.

The methods used to drive the livestock into and from the trucks vary with the different truckers, Table 24. In loading and unloading, livestock may be handled carefully or roughly, depending upon the kind of trucker, his susceptibility to anger, and the contrariness of the livestock. Table 24 shows that 60 per cent of the truckers use canes. The farmers stated that 74 per cent of the truckers used canes and only about 12 per cent used some kind of flapjack. A cane can be so used that livestock will not be roughly handled or so that livestock can be bruised beyond belief. If a trucker or farmer hits a hog, calf, steer, or lamb a hard blow over the loin with a cane or club, the animal will carry that bruise to the killing floor. Too many truckers use canes in the wrong way. Too few truckers use flapjacks and slappers, as is shown in Table 24. There are a few truckers who use pointed sticks or sticks with a nail in the end or other equally foolish methods to drive the livestock. These methods should be abolished, and farmers can do much to stop them.

Incidentally, the truckers in some instances related incidents of almost unbelievably rough handling by the farmers themselves. Such rough handling only reacts upon the farmer in the long run. It pays to handle livestock carefully so that little or no bruising takes place.

TABLE 23.—Methods Used by Truckers in Identifying Livestock When Trucking for Two or More Farmers

Method	Crawford	Logan	Preble	New London	Total
	Number of truckers				
Partition and mark	9	6	26	2	43
Mark	7	11	5	6	29
Partition	4	4	11	.....	19
Partition and color	1	.....	1	.....	2
Color	.....	.....	1	.....	1
Mark or remember	.....	1	.....	.....	1
Knows them	.....	1	.....	.....	1
Total	21	23	44	8	96
	Percentage of truckers				
Partition and mark	42.9	26.2	59.0	25.0	44.9
Mark	33.3	47.8	11.4	75.0	30.2
Partition	19.0	17.4	25.0	.....	19.8
Partition and color	4.8	.....	2.3	.....	2.1
Color	.....	.....	2.3	.....	1.0
Mark or remember	.....	4.3	.....	.....	1.0
Knows them	.....	4.3	.....	.....	1.0
Total	100.0	100.0	100.0	100.0	100.0

TABLE 24.—Methods Used by Truckers to Drive Livestock When Loading and Unloading

Method	Crawford	Logan	Preble	New London	Total
	Number of truckers				
Cane	13	17	31	7	68
Hands	3	1	7	3	14
Flapjacks and slappers	4	3	5	1	13
Strap	1	3	1	.....	5
Other methods*	2	3	8	.....	13
Total	23	27	52	11	113
	Percentage of truckers				
Cane	56.5	63.0	59.6	63.6	60.2
Hands	13.1	3.7	13.5	27.3	12.4
Flapjacks and slappers	17.4	11.1	9.6	9.1	11.5
Strap	4.3	11.1	1.9	.....	4.4
Other methods*	8.7	11.1	15.4	.....	11.5
Total	100.0	100.0	100.0	100.0	100.0

*Other methods include: rubber hose, nail, hurdles, noise, stick, board, sharpened stick, etc.

Only one farmer of the group interviewed in this study stated that livestock was handled roughly by the truckers. All others indicated that it was handled carefully. Of course, the degree of roughness or carefulness was not defined and what a farmer might consider as careful handling might not be so considered by a slaughterer who has witnessed the bruising of animals in numerous ways.

TABLE 25.—Reasons Given by Truckers Why Livestock Transported by Truck Might be Bruised More Than Livestock Delivered by Rail

Reason	Crawford	Logan	Preble	New London	Total
	Number of answers				
Beating or rough handling	14	8	24	5	51
Trucked livestock bruised less	2	5	8	.....	15
Overloading	5	4	6	2	17
Rough driving of truck	2	3	9	2	16
Other reasons*	3	5	9	2	19
Total	26	25	56	11	118
	Percentage of answers				
Beating or rough handling	53.8	32.0	42.9	45.4	43.2
Trucked livestock bruised less	7.7	20.0	14.3	.....	12.7
Overloading	19.2	16.0	10.6	18.2	14.4
Rough driving of truck	7.7	12.0	16.1	18.2	13.6
Other reasons*	11.6	20.0	16.1	18.2	16.1
Total	100.0	100.0	100.0	100.0	100.0

*Other reasons include: small, short racks; farmer bruised it; tieing cattle in truck; not enough bedding; livestock peddled from auction to auction; most bruising occurred in yards; livestock not partitioned; single-tired trucks sway, etc.

Some packers have maintained that livestock is bruised more when transported by trucks. The truckers were asked for their opinion. These are summarized in Table 25. Some truckers did not believe that livestock was bruised more, and no trucker would admit that he bruised any livestock; however, truckers did indicate that if livestock is bruised it was probably due to rough handling of the stock. Some indicated it was due to overloading and the rough driving of the trucks by the driver, especially when going around curves and when stopping and starting. Some indicated that the truck racks were too small, which would cause cattle to be bruised at the tail head.

Another phase of handling has to do with the cleanliness of the truck. Most of the truckers cleaned their trucks frequently. According to the truckers' statements 37 per cent of the trucks was cleaned after each trip, 28 per cent more after two trips, 8 per cent after three trips, and 10 per cent every day livestock was hauled.

Most truckers depended upon farmers to furnish bedding for the trucks, and, consequently, most truckers used straw for bedding, both in winter and summer. Some used sawdust and a few used sand in summer. A few found a combination of sand and straw very effective. The principal reason for using sand under straw in winter is to prevent slipping, especially if the floors get wet.

Many truckers followed the policy of disinfecting their trucks rather frequently; whereas others paid no attention to it, about one-third not disinfecting. Trucks should be disinfected after hauling diseased stock, as well as to make a sanitary rack. Some truckers indicated they disinfected their trucks after every trip when they were hauling sick hogs during a cholera epidemic, which would seem an advisable precaution.

In order to prevent livestock from slipping in trucks some truckers are using a device made of wood, which is placed on the floor of the truck and is removable. Boards of native lumber, usually about 1½ inches in thickness and 2 or 3 inches wide, are built into a latticed device with the boards placed about 12 inches apart each way. The boards are mortised out where each crosses the other at right angles. This device is placed on the floor of the truck inside the rack and is covered with straw. Livestock is loaded in the normal manner. Then, as the truck swings or sways from one side to the other and stops or starts quickly, it does not throw the livestock to the floor of the truck, for their feet can get a firm hold on the floor from this latticed device. The feet will slip but a few inches until they strike one of the latticed boards which gives a firm footing. This device is especially helpful in wet weather when truck floors become very slippery.

Another suggestion offered by an Ohio packer would prevent much of the rib and tail head bruising in cattle. When cattle are trucked, this packer suggests that small burlap bags filled with straw or excelsior should be fastened to the inside of the truck rack at about the position where the ribs and tail heads of cattle bump against the rack. Then, as the cattle strike the rack of the truck, there would be the cushioning effect of the burlap bag filled with straw rather than the hard boards of the truck rack. Such carefulness this packer believes would eliminate much of the cattle bruising.

Lambs and sheep are often difficult to load and unload. Too many truckers pick up lambs by grasping the wool on the back of the lambs. This usually causes a bad bruise on the back with a resulting loss. Truckers should keep this in mind and refrain from using such methods. Farmers should likewise know and insist on careful handling.

INSURANCE CARRIED BY LIVESTOCK TRUCKERS

This phase of the trucking problem has received considerable discussion since livestock trucking has been competing with railroads. Table 26 shows that in the areas studied about 60 per cent of the truckers carried property damage and liability insurance and slightly less than half carried cargo insurance and only about 25 per cent carried crippled and dead insurance. This table would indicate that too many truckers are transporting livestock without adequate protection. They are gambling upon their luck to avoid accident, trouble, and loss. Although only 5 per cent of the farmers interviewed in this study stated that they had ever experienced any loss in having livestock trucked, it would seem that all should be protected in case of any loss. A number of truckers stated they carried their own crippled and dead insurance and made good on losses, but with no higher financial responsibility than indicated previously in this discussion it would seem that there are possibilities for future losses.

TABLE 26.—The Kinds of Insurance Carried by Livestock Truckers

Kind	Crawford	Logan	Preble	New London	Total
	Number of truckers				
Property damage	21	14	22	6	63
Cargo	19	12	16	2	49
Liability	22	15	23	6	66
Crippled and dead	11	2	15	.....	28
Truckers giving information	24	25	48	8	105
	Percentage of truckers				
Property damage	87.5	56.0	45.8	75.0	60.0
Cargo	79.2	48.0	33.3	25.0	46.7
Liability	91.7	60.0	47.9	75.0	62.9
Crippled and dead	45.8	8.0	31.2	.....	26.7

Here the better trucker has an opportunity to sell himself and his service to the farmers if he wishes by advertising the fact that livestock is covered on all losses from the time it leaves the farm until it reaches its destination. Some truckers make such claims but only depend upon luck and good fortune to help them out.

Crawford County had a larger percentage of truckers carrying complete insurance than the other areas. The truckers who carried complete insurance were as follows: Crawford, 39.3 per cent; Logan, 7.7 per cent; Preble, 22.0 per cent; and New London, none. When all areas were averaged it was found that only 21.2 per cent of the truckers carried complete insurance.[2]

TABLE 27.—The Responsibility for Losses in the Opinions of a Group of Farmers

Responsibility	Crawford	Logan	Preble	New London	Total
	Number of truckers				
Insurance company	7	2	10	3	22
Trucker	8	4	13	3	28
Farmer	5	4	7	2	18
Association	4	10	.....	.....	14
Did not know	6	16	6	5	33
Total	30	36	36	13	115
	Percentage of truckers				
Insurance company	23.3	5.6	27.8	23.1	19.1
Trucker	26.7	11.1	36.1	23.1	24.3
Farmer	16.7	11.1	19.4	15.4	15.7
Association	13.3	27.8	.....	.....	12.2
Did not know	20.0	44.4	16.7	38.4	28.7
Total	100.0	100.0	100.0	100.0	100.0

Insurance is important for protection of both the trucker and the farmer. It is interesting to note the farmer viewpoint in case of a loss, Table 27. More than one-fourth of the farmers did not know who would stand the loss in case of a wreck or loss of any kind. They had not put the question to the trucker.

[2]By complete insurance is meant—property, liability, cargo, and crippled and dead.

There was another 15 per cent who thought the farmer would stand all loss. In fact, the loss question had concerned only a few of the farmers, and they did not seem much concerned about the question, for, as a group, very few had ever suffered any losses.

COST OF OPERATING LIVESTOCK TRUCKS

Very few truckers keep records and know what it costs to operate their trucks. Many of the truckers said they did not want to know with the prevailing low rates of 1932. However, the truckers were asked to estimate their total costs (including depreciation) of operation per mile, but slightly less than half ventured an estimate, Table 28. These estimates are given for all trucks and for the 1½-ton size. More variation would be expected in the costs per mile of all trucks than among those of the same size, and yet both groups varied from 5 to 15 cents per mile, the range being the same in both groups. The weighted average estimated cost per mile for all trucks figured to be 9.58 cents per mile and 8.75 cents for the 1½-ton trucks. When the cost per mile is figured on the trucks other than the 1½-ton group, it amounted to 10.5 cents per mile. This is due to the larger trucks which are included in this class.

TABLE 28.—The Estimated Cost per Mile for Operating Trucks Transporting Livestock

Cost per mile	Number of trucks		Percentage	
	All	1½-ton	All	1½-ton
Cents				
5	1	1	1.9	3.6
6	2	1	3.8	3.6
7	7	5	13.2	17.8
8	9	10	17.0	35.7
9	3	1	5.6	3.6
10	23	8	43.4	28.6
11	1	.....	1.9	.....
12	1	.....	1.9	.....
13	.....	.....	.....	.....
14	.....	.....	.....	.....
15	6	2	11.3	7.1
Total	53	28	100.0	100.0
Weighted average cost	9.58	8.75	.....	.....

A bulletin[3] published by the U. S. Department of Commerce gives as good information on truck operating costs as any. The costs are given for individual trucks and are for varying periods of time. Three different sizes of trucks were selected on which complete information was available. These were averaged and the results are presented in Table 29. These averages are for six 1½-ton trucks, eight 2-ton trucks, and ten 2½-ton trucks. These costs are not as complete as they should be and do not cover as long a period as might be desired and thus must be considered with such shortcomings. These costs of operation include tires and tubes, gasoline, oil and grease, maintenance and repair, and depreciation. Other miscellaneous costs were not included.

[3]Motor Truck Freight Transportation—Domestic Commerce Series No. 66.

When these costs were averaged on a per-mile basis they totaled about 10 cents per mile for the 1½- and 2-ton trucks and 12 cents per mile for the 2½-ton trucks. If these costs of operation are reasonably correct, then the livestock truckers underestimated somewhat the cost per mile for operating livestock trucks. However, the charges for maintenance and repair would average lower with the livestock trucks than those under comparison, for much of the labor in repairing livestock trucks is furnished by the trucker himself.

TABLE 29.—The Average Operating Costs for 1½-, 2-, and 2½-ton Trucks During the Year 1931

(Source: Motor Truck Freight Transportation—Domestic Commerce Series No. 66)

	Average per truck			Average cost per mile		
	1½-ton trucks (a)	2-ton trucks (b)	2½-ton trucks (c)	1½-ton trucks	2-ton trucks	2½-ton trucks
Number of trucks	6	8	10	.....	.....	.....
Period covered (mo.)	9.0	9.6	9.7	.....	.....	.....
Average load (lb.)	2,161	4,190	4,613*	.....	.....	.....
Truck miles operated	16,647	34,085	23,178	.....	.....	.....
Costs:						
Tires and tubes	$272.58	$490.92	$454.73	$0.01637	$0.01440	$0.01962
Gasoline	391.11	965.90	756.39	0.02349	0.02834	0.03263
Oil and grease	52.71	151.52	118.11	0.00317	0.00445	0.00510
Maintenance and repairs	507.37	977.11	790.38	0.03048	0.02867	0.03367
Depreciation	459.95	1018.86	763.23	0.02763	0.02989	0.03293
Total direct operating costs	$1,683.72	$3,604.32	$2,872.82	$0.10114	$0.10574	$0.12395

U. S. Dept. of Commerce, Bureau of Foreign and Domestic Commerce, Table 16.
(a) Page 29. (b) Page 30. (c) Pages 32 and 33.
*Average load on 9 trucks.

With these estimated costs as a background, let us examine what the situation might be in a typical territory. Let us assume a county which will average about 50 miles from a terminal market, and the trucking rate on hogs, for example, will average about 15 cents per hundredweight. This is about the situation in Preble County—one of the areas in this study. The mileage to pick up a load will run about 15 miles; then the round-trip mileage would total about 115 miles. With the cost on 1½-ton trucks running about 9 cents per mile as estimated by these truckers, it would mean that his cost would amount to about $10.35 for the trip. At 15 cents per hundredweight for hogs the trucker would have to haul 6900 pounds to pay for the costs of operating his truck. What he hauled over 6900 pounds he could take for his own labor. If he hauled 8000 pounds he would net about $1.65 for his labor for the trip. Now 8000 pounds is a very good load for any 1½-ton truck; in fact, most of the truckers using such trucks average less than 8000 pounds.

This assumption may be wrong, in that the costs per mile as estimated by the truckers do not approximate the facts. If these costs are lower, then the trucker would receive somewhat more per trip. Then too, this assumption may approximate the facts which would mean principally two things: One, the rates are too low; and, two, the trucker is not receiving enough to take care of depreciation. When the trucker wears out his present truck he will not be able to buy a new truck unless trucking rates on livestock should increase.

This may mean that, if the present situation continues, there will probably be fewer truckers (eliminating those with the higher costs) and that livestock rates will increase from the prevailing low rates.

Another assumption may be made with reference to the rate problem. The truckers estimated the heavier trucks, on the average, to cost about 10.5 cents per mile. On our previous basis it would cost $12.07 (115 x 10.5) to make a trip. At 15 cents per hundredweight this would take 8047 pounds to pay for the costs of operation and the trucker could haul 10,000 pounds. He then would receive nearly $3.00 for his trip. But the difficulty is to obtain such loads. Livestock farmers often do not wait for such loads. They want to market on a certain day. Thus, the big truck is not meeting with much favor. Instead, many truckers prefer the semi-trailer on the smaller trucks. They have lower costs of operation but can haul large loads when the opportunity is presented.

RATES FOR TRUCKING LIVESTOCK

Railroads charge for transporting products on a definite schedule basis. When discussing trucking one might think that truckers are paid upon the same principle. This is only partially true, for many truckers take title to the commodity and really become speculators and dealers, although many will haul for rates when they are unable to take title to the commodity. This is especially true with livestock hauling, as is shown by Table 30.

TABLE 30.—The Percentage of Livestock Trucked for Rates by Truckers

Percentage	Crawford	Logan	Preble	New London	Total
	Number of truckers				
0— 9.9	4	8	2	3	17
10—19.9	3				3
20—29.9		1	2		3
30—39.9			1	1	2
40—49.9				1	1
50—59.9	2	2	1	1	6
60—69.9			1		1
70—79.9	1		1	1	3
80—89.9			3		3
90—99.9	4		2		6
100	12	15	37	2	66
Total number of truckers	26	26	50	9	111
Average percentage trucked for rates	70.4	64.4	88.7	47.2	75.4
	Percentage of truckers				
0— 9.9	15.4	30.8	4.0	33.4	15.3
10—19.9	11.5				2.7
20—29.9		3.8	4.0		2.7
30—39.9			2.0	11.1	1.8
40—49.9				11.1	0.9
50—59.9	7.7	7.7	2.0	11.1	5.4
60—69.9			2.0		0.9
70—79.9	3.8		2.0	11.1	2.7
80—89.9			6.0		2.7
90—99.9	15.4		4.0		5.4
100	46.2	57.7	74.0	22.2	59.5
Total	100.0	100.0	100.0	100.0	100.0

This table shows that, on the average, 75 per cent of the livestock in the four areas was trucked for rates, but it varied considerably in the different areas. In Crawford County 70 per cent was hauled on a rate basis; 64 per cent in Logan County; 88 per cent in Preble; but only 47 per cent in the New London territory. This table indicates more livestock was trucked for rates in the Cincinnati territory than around Cleveland.

The rates which the different truckers were charging to the terminal markets from the different areas are given in Tables 31 to 34, inclusive. This shows that the rates were not uniform within the same area but varied considerably. Cattle rates and hog rates were practically the same. They differed little within the same county. This is further shown by the average of the rates, since cattle and hogs are nearly the same for the different areas. In the case of calves two methods of charging rates were found; namely, by the head and by the hundredweight. With hogs and cattle the rates were mainly based on the hundredweight. More than 60 per cent of the truckers giving information on calf rates stated they charged on a per-head basis. The most common charge per calf was one dollar—a few received 75 cents and a few $1.25.

TABLE 31.—The Rates Charged for Trucking Hogs to Terminal Markets

Rate per cwt.	Crawford	Logan	Preble	New London	Total
		Number of truckers			
Cents					
15			19		19
20			9		9
25					
30		1			1
35	1	1			2
40	13	1		2	16
45					
50	2*			4†	6
55					
Total number of truckers	16	3	28	6	53
Av. rate per cwt., cents	40.94	35.00	16.61	46.67	28.40
		Percentage of truckers			
Cents					
15			67.86		35.85
20			32.14		16.98
25					
30		33.3			1.89
35	6.25	33.3			3.77
40	81.25	33.4		33.33	30.19
45					
50	12.50			66.67	11.32
55					
Total	100.00	100.00	100.00	100.00	100.00

*One trucker cuts rates 5 cents for 2000 to 4000 pounds and for over 4000 pounds cuts rates 10 cents per hundredweight.

†One trucker cuts rates 10 cents per hundredweight for one ton or more.

TABLE 32.—The Rates Charged for Trucking Cattle to Terminal Markets

Rate	Crawford	Logan	Preble	New London	Total
			Number of truckers		
Cents per cwt.					
15			19		19
20			9		9
25					
30		1			1
35	1				1
40	11	1		2	14
45					
50	3*			4	7
55					
60	1				1
Total number of truckers	16	2	28	6	52
Av. rate per cwt., cents	42.8	35.0	16.6	46.6	28.8
			Percentage of truckers		
Cents					
15			67.9		36.6
20			32.1		17.3
25					
30		50.0			1.9
35	6.3				1.9
40	68.7	50.0		33.3	26.9
45					
50	18.7			66.7	13.5
55					
60	6.3				1.9
Total	100.0	100.0	100.0	100.0	100.0

*One trucker cuts rates 5 cents for 2000 to 4000 pounds from one farmer and for over 4000 pounds he cuts rates 10 cents per hundredweight.

A similar condition was found with sheep and lambs. Rates were charged both by the head and by the hundredweight. Nearly 50 per cent of the truckers charged by the head. However, this was due to the practice in the Preble area alone. All the other three areas charged by the hundredweight. The rate was not uniform, there being considerable difference among truckers in the same area, as well as between areas.

Assuming that calves would average about 175 pounds and lambs 85 pounds, a weighted average rate was figured for each area and all areas. This average shows that in all cases the rates per hundredweight for calves averaged higher than for any other species and that lambs were next to calves. The rates on calves per hundredweight for all areas averaged about 25 cents higher than for hogs and cattle.

The higher rate on calves is due primarily to the fact that truckers have to stop so many times to pick up a single calf. This means extra expense to the trucker. In the case of lambs the higher rate is charged because lambs are lighter than hogs and cattle per square foot of floor space. Consequently, truckers have to haul a lighter load in pounds although they may be loaded as far as space is concerned.

TABLE 33.—The Rates Charged for Trucking Calves to Terminal Markets

Rate	Crawford	Logan*	Preble	New London*	Total
Number of truckers					
Cents per cwt.					
35	1				1
40	4			2	6
45					
50	3		1	2	6
55					
60	4				4
65	1				1
70					
75		1			1
Dollars per head					
0.75			3		3
1.00	3	1	21	2	27
1.25		1	1		2
Total number of truckers	16	3	26	6	51
Av. rate per cwt.†, cents	51.3	67.6	53.8	49	53.3
Percentage of truckers					
Cents per cwt.					
35	6.3				2.0
40	25.0			33.3	11.8
45					
50	18.7		3.8	33.3	11.8
55					
60	25.0				7.8
65	6.3				2.0
70					
75		33.3			2.0
Dollars per head					
0.75			11.6		5.9
1.00	18.7	33.3	80.8	33.4	52.8
1.25		33.4	3.8		3.9
Total	100.0	100.0	100.0	100.0	100.0

*There are exceptions to these rates.
†Assuming 175 pounds as average weight when calves are hauled by the head.

TABLE 34.—The Rates Charged for Trucking Sheep and Lambs to Terminal Markets

Rate	Crawford	Logan*	Preble	New London	Total
Number of truckers					
Cents per cwt.					
35	1	1			2
40	3			2	5
45		1			1
50	9			4	13
55					
60	3				3
65		1			1
Cents per head					
25			6		6
30			2		2
35			10		10
40			3		3
45					
50			1		1
Total number of truckers	16	3	22	6	47
Av. charge per cwt.†, cents	49.1	48.3	41.5	46.7	45.2
Percentage of truckers					
Cents per cwt.					
35	6.3	33.3			4.3
40	18.7			33.3	10.6
45		33.3			2.1
50	56.3			66.7	27.7
55					
60	18.7				6.4
65		33.4			2.1
Cents per head					
25			27.3		12.7
30			9.1		4.3
35			45.5		21.3
40			13.6		6.4
45					
50			4.5		2.1
Total	100.0	100.0	100.0	100.0	100.0

*There are exceptions to these rates, but they are the common rates charged.
†Assuming 85 pounds as average weight of lambs when they are hauled by the head.

In order to check the rates charged, the farmers whom we interviewed were asked the rates they paid for trucking. This information for hogs is given in Table 35. If the average for each area is compared with the previous table giving the rates on hogs charged by truckers, little difference is noted except for Crawford County, where the farmers indicated they paid 5 cents more per hundredweight. Very few of the farmers we interviewed knew the rates for cattle, calves, and lambs; thus, it was impossible to make a comparison of these species. If hogs were representative, the differences would be small. The farmers indicated, on the average, higher rates than the truckers stated they were charging. This is undoubtedly due to the fact that trucking rates declined during 1932 from what they were in 1931. Farmers would more than likely not be informed on the new and lower rates.

TABLE 35.—The Rates Farmers Stated They Paid for Trucking Hogs to Terminals

Rate	Crawford	Logan	Preble	New London	Total
Cents per cwt.					
10			1		1
15			13		13
20			7		7
25					
30		2			2
35	1	1			2
40	9	3		6	18
45	2				2
50	9			3	12
55	2				2
60	1				1
Total weighted average rate, cents...	46.04	35.83	16.43	43.33	34.25

The previous discussion on rates concerned trucking to the terminal markets and had no reference to local trucking or short distances—that is, less than 15 miles. With the exception of the Logan area, most of the truckers hauled to the terminals at Cleveland or Cincinnati. In the short distance hauling, most of the rates were figured on a trip or load basis. Table 36 gives the amount paid by farmers per load and the average distance hauled. Most of the trips were of the short variety. There was a tendency to increase the charge per load as the distance increased. Although the number of truckers is not large, this is thought to be typical of the short distance or local hauling.

TABLE 36.—The Rates Farmers Paid to Truckers for Hauling Livestock Locally and the Average Distance Hauled

Rate	Crawford	Logan	Preble	Total
Dollars				
1.00	1	3	2	6
1.50	1	12	1	14
2.00	2	5		7
2.50			2	2
3.00		1		1
3.50		1		1
4.00	1			1
Total	5	22	5	32
Average rate	$2.10	$1.70	$1.70	$1.76
Average distance hauled, miles				
Dollars				
1.00	5	2.0	3.5	3.0
1.50	6	4.5	4.0	4.6
2.00	6	7.8		7.3
2.50			8.5	8.5
3.00		8.0		8.0
3.50		12.0		12.0
4.00	13			13.0
Average distance	7.2	5.4	5.6	5.72

One rather interesting feature of the rate question was observed with reference to the farmers' knowledge of rates. We found that those farmers who marketed livestock at the terminal markets knew approximately what rates were charged for hogs but were not informed on other rates. If they marketed no hogs they were not included in the analysis of hog rates; likewise, if they marketed no calves they were not included in the analysis of calf rates. On this basis, only 5.5 per cent of the farmers who marketed hogs did not know the rate for trucking hogs, similarly 14 per cent did not know the rate for trucking cattle, 34 per cent for calves, and 45 per cent for sheep. Although it might be expected that more farmers would know the trucking rates for hogs since many hogs are produced in these areas, one would think that more than 55 per cent of the farmers would know the rates for trucking sheep when they had sheep to market. If one did not have sheep to market he might not be interested in the rate. This can be understood. The same situation, to a large extent, holds for calves. Farmers market, on the average, only a few calves and probably conclude that it makes no difference what the rate may be, for they must be marketed and the truck rate paid. This may be the reason for fewer farmers knowing the truck rates on calves and sheep.

The rates charged for livestock trucking are presented from a different angle in Table 37 and probably are more nearly comparable when they are placed on a ton-mile basis. The table gives the round-trip mileage of all truckers; this is divided by two in order to give the one-way distance, and this is, in turn, divided by the total rate to move one ton of livestock of the various species. The New London and Preble areas were nearest to the terminals, while Logan was most distant.

TABLE 37.—The Rates per Ton Mile for Trucking Livestock to Terminal Markets

	Crawford	Logan	Preble	New London	Weighted average
Av. round trip mileage	204.00	312.00	102.00	132.50	154.30
Av. one-way mileage	102.00	156.00	51.00	66.20	77.10
	Cents	*Cents*	*Cents*	*Cents*	*Cents*
Av. rate per cwt.—hogs	40.94	35.00	16.61	46.67	28.40
Av. rate per cwt.—cattle	42.80	35.00	16.60	46.66	28.85
Av. rate per cwt.—calves	51.30	67.60	53.80	49.00	53.30
Av. rate per cwt.—sheep	49.10	48.30	41.50	46.70	45.20
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*
Av. rate per ton—hogs	8.19	7.00	3.32	9.33	5.68
Av. rate per ton—cattle	8.56	7.00	3.32	9.32	5.77
Av. rate per ton—calves	10.26	13.52	10.76	9.80	10.66
Av. rate per ton—sheep	9.82	9.66	8.30	9.34	9.04
	Cents	*Cents*	*Cents*	*Cents*	*Cents*
Av. rate per ton mile—hogs	8.029	4.487	6.510	14.093	7.367
Av. rate per ton mile—cattle	8.392	4.487	6.510	14.079	7.483
Av. rate per ton mile—calves	10.059	8.667	21.098	14.803	13.826
Av. rate per ton mile—sheep	9.627	6.192	16.274	14.109	11.725

Note: Where rates were given on a per-head basis they were converted to a per-hundred-weight basis, assuming a weight of 175 pounds for calves and 85 pounds for lambs.

The rate per ton mile was lowest in the Logan area for all species; whereas it was highest in the New London area for hogs and cattle and in Preble for calves, sheep, and lambs.

The rates per ton mile averaged highest on calves, with sheep and lambs following closely. Hogs and cattle were lowest, with hogs slightly lower than

cattle. From this table one could draw the general conclusion that the shorter distances had the highest rate per ton mile and the longer distances had the lowest rate per ton mile.

It was the general opinion that rates for trucking livestock were low. Many farmers indicated that they did not understand how the truckers could haul so cheaply. This was especially noticeable in the Preble area. In Table 38 the opinions of both truckers and farmers interviewed upon future rates are presented. It is interesting to note that 52 per cent of the truckers and only 38 per cent of the farmers believed rates would remain where they were when interviewed. On the other hand, 57 per cent of the farmers and only 46 per cent of the truckers believed rates would increase. This would seem to show that more farmers than truckers believed rates would increase. Very few thought rates would decrease. Apparently the bottom has been reached as far as trucking rates are concerned.

TABLE 38.—The Opinion of Livestock Truckers and Farmers Upon Future Rates for Trucking Livestock

Rate	Crawford	Logan	Preble	New London	Total
Truckers:					
Increase	35.3	37.5	55.3	33.3	45.9
Remain same	58.8	62.5	44.7	66.7	52.7
Decrease	5.9	.....	.....	.....	1.4
Total	100.0	100.0	100.0	100.0	100.0
Farmers:					
Increase	55.0	24.0	91.2	33.3	57.1
Remain same	40.0	64.0	8.8	66.7	38.5
Decrease	5.0	12.0	.....	.....	4.4
Total	100.0	100.0	100.0	100.0	100.0

TABLE 39.—The Actual and Percentage Increase in Livestock Rates Desired by Truckers

	Crawford	Logan	Preble	New London	Weighted average
Percentage increase desired					
Hogs	6.67	35.71	47.26	19.63	23.91
Cattle	5.14	33.14	47.59	19.59	22.36
Calves	4.74	0	3.03	25.00	5.97
Sheep and lambs	3.26	26.92	5.49	19.49	9.51
Actual increase in cents per cwt.					
Hogs	2.73	12.50	7.85	9.16	6.79
Cattle	2.20	11.60	7.90	9.14	6.45
Calves	2.43	0	1.63	12.25	3.18
Sheep and lambs	1.60	13.00	2.28	9.10	4.30

The cutting of rates and the low rates generally brought considerable comment from the truckers. Nearly all truckers indicated that they would like to see rates higher. This is given in Table 39. This table points out that the truckers would like to see the rates higher for hogs and cattle. The truckers in the Preble area desired hog and cattle rates 47 per cent higher than

they now are, or about 8 cents per hundredweight on the average. The smallest increase was desired in Crawford. The largest actual increase was desired in Logan. It was generally thought that the rates for calves, sheep, and lambs were about where they should be. The truckers thought the lamb rates should be increased in the Logan and New London sections.

The future trend on rates depends upon a number of factors, such as future legislation, taxes, competition by rail (as well as by truck), attitude of farmers, improvements in trucks, higher or lower costs of operation, life of trucks, etc. Some writers and speakers have said that, when the present trucks are worn out, the truckers will cease operations and rates will rise. However, up to the time of this study it has seemed that a new trucker (sometimes two) was ready to buy a new truck when one of the old trucks wore out. All the truckers interviewed were asked whether they could save enough money on present rates to purchase a new truck when their old truck wore out. For all the areas, 32 per cent said they could, 45 per cent said they could not, and the remainder did not know, Table 40.

TABLE 40.—The Opinion of Truckers Whether Trucking Rates were High Enough to Enable the Trucker to Purchase a New Truck when the Old Truck Wore Out

Opinion	Crawford	Logan	Preble	New London	Total
	Number of truckers				
Yes	13	13	5	1	32
No	5	4	33	3	45
Unable to say	4	8	9	2	23
Total	22	25	47	6	100
	Percentage of truckers				
Yes	59.09	52.00	10.64	16.67	32.00
No	22.73	16.00	70.21	50.00	45.00
Unable to say	18.18	32.00	19.15	33.33	23.00
Total	100.00	100.00	100.00	100.00	100.00

This condition varied for the different districts. The truckers in Preble County did not think the rates were high enough to provide for depreciation; nearly 60 per cent thought they were high enough in Crawford County. There are more newer trucks in the Crawford than in the Preble area, and this may account for some of this difference, although the Preble truckers have been trucking a longer period and have had more experience.

From an analysis of the statements of the truckers (table is omitted) it was noted that more than 75 per cent indicated that the present low rates were due mainly to competition from other truckers. In almost every community or territory there was a trucker who had cut rates and was frowned upon by other truckers. Of the various reasons for cutting rates other than competition, the low prices of livestock were mentioned most frequently. Undoubtedly, some truckers sympathize with the farmers and were led to reduce rates. "If I can hold my business and break even," one trucker remarked, "I will be satisfied in these times". It was this attitude of truckers to reduce rates that brought most commendation from the farmers. Incidentally, it was the lack

of the same action on the part of the railroads in not reducing rates that brought most of the criticism against the railroads, and many of the farmers were rather bitter toward the railroads.

To show how trucking rates have declined, Tables 41 and 42 are presented. These tables were made up by examining many account sales at the Cincinnati and Cleveland markets for the years 1929, 1930, 1931, and 1932. Certain post offices from the address on the account sales were selected. The trucking rates were obtained for each species and converted to a hundredweight basis when it was not given as such. These post offices were then divided into two groups—those under 40 miles and those over 40 miles from the markets. The trucking rates for the localities, as represented by the post offices, were then averaged for each group by species. The same groups of towns were carried for each species but often varied between species; for example, one locality might give very good hog rates but have no sheep rates. With this difference the average distances of the localities from the markets are given for each species in each group. The average distance for the localities under 40 miles for all species was about 25 miles from the Cincinnati stockyards and 30 miles from the Cleveland stockyards. For those over 40 miles the average distance was slightly under 55 miles.

An examination of Table 41 points out that trucking rates around Cincinnati varied very little during 1929 and 1931 when the averages of all points were considered. Hog rates were slightly lower in 1930 than in 1929. Cattle rates were only very little lower. Calf rates increased in 1930 over 1929 for the points under 40 miles but declined about 8 cents per hundredweight for the points over 40 miles from Cincinnati. Sheep rates increased slightly for both groups of country points. With few exceptions similar rates obtained at Cleveland.

TABLE 41.—Trucking Rates to Cincinnati from Country Points Under 40 Miles and Over 40 Miles, 1929-1932, and Index of Rates (Average 1929-1931=100)

(Cents per hundredweight)

Species	Average distance	Rate per cwt.				Index of rates			
		1929	1930	1931	1932	1929	1930	1931	1932
Under 40 miles:									
Hogs	25.9	.347	.338	.311	.196	104.5	101.8	93.7	59.0
Cattle	24.9	.362	.345	.334	.229	104.3	99.4	96.3	66.0
Calves	25.7	.659	.694	.626	.504	99.9	105.2	94.8	76.4
Sheep	25.3	.521	.552	.443	.287	103.2	109.3	87.7	56.8
Over 40 miles:									
Hogs	54.4	.362	.339	.302	.186	108.4	101.5	90.4	55.7
Cattle	52.6	.329	.325	.307	.211	102.8	101.6	95.9	65.9
Calves	54.6	.873	.785	.661	.525	112.9	101.6	85.5	67.9
Sheep	53.3	.609	.618	.578	.342	101.2	102.7	96.0	56.8

When the rates for 1931 are examined, all species for both groups of localities showed declines. The biggest drop at Cincinnati took place in the sheep rate for towns under 40 miles and in the calf rate for towns over 40 miles. These were approximately 11 cents and 12 cents per hundredweight, respectively. The hog and cattle rates declined only very little for both groups of localities.

TABLE 42.—Trucking Rates to Cleveland from Country Points Under 40 Miles and Over 40 Miles, 1929-1932, and Index of Rates (Average 1929-1931=100)

(Cents per hundredweight)

Species	Average distance	Rate per cwt.				Index of rates			
		1929	1930	1931	1932	1929	1930	1931	1932
Under 40 miles:									
Hogs	33.6	.666	.678	.483	.400	109.4	111.3	79.3	65.7
Cattle	30.5	.492	.481	.432	.400	105.1	102.7	92.2	85.4
Calves	31.5	.835	.781	.821	.619	102.8	96.1	101.1	76.2
Sheep*									
Over 40 miles:									
Hogs	56.7	.556	.553	.478	.381	105.1	104.5	90.4	72.0
Cattle	48.0	.599	.544	.506	.418	109.0	99.0	92.0	76.0
Calves	54.6	.696	.716	.589	.502	104.3	107.3	88.3	75.3
Sheep	49.1	.648	.626	.488	.463	110.3	106.6	83.1	78.8

*Data were insufficient.

The real drop in rates came during 1932. Hog rates at Cincinnati dropped 11.5 cents and 11.6 cents for the two groups of towns; cattle rates, 10.5 cents and 9.6 cents; calf rates, 12.2 cents and 13.6 cents; and sheep rates, 15.6 cents and 13.6 cents per hundredweight, respectively. This shows that sheep rates declined more than any other species and that the percentage drop was about the same. The smallest percentage drop took place in the calf rates for the country points under 40 miles from Cincinnati.

There is another striking fact brought out in these tables. The rates for all species were approximately the same for the towns under 40 miles as compared to those over 40 miles, even though the distance averaged more than 25 miles more. In fact, the hog and cattle rates were somewhat less for the group of towns over 40 miles from Cincinnati. The same was true for the calf rates at Cleveland.

The four columns on the right side of Table 41 give an index of rates for each year, by species, for the two groups of localities, with the average of each species for the years 1929, 1930, and 1931 taken as a base or 100. An examination of the index of rates for 1932 points out that hog and sheep trucking rates have dropped relatively more than have cattle and calf rates. The largest drop was in the hog rate for towns over 40 miles from Cincinnati and the smallest drop was in the calf rate for the towns under 40 miles.

When the index of rates to Cleveland—the four right-hand columns of Table 42—are examined, one observes that the rates in 1932 at Cleveland did not drop as much relatively as they did at Cincinnati. There is another striking difference between the Cincinnati and Cleveland rates. In regard to the groups of towns over 40 miles from both markets, the truck rates for hogs and cattle averaged considerably higher at Cleveland than at Cincinnati for the 4-year period. This is due to the density of the livestock in the territory surrounding Cincinnati as compared with Cleveland.

The rates presented in these two tables show very definitely that the trend has been downward during the past 2 years. After examining these rates there is no indication that they reached bottom in 1932. In spite of the decided drop in 1932, rates may drop more in 1933 or they may turn upward from the 1932 level, depending upon livestock prices and the general price level.

SUMMARY

1. Of the trucks used in this study 53 per cent was 1½-ton, and 24 per cent was 2-ton.
2. Livestock truck racks contained, on the average, less than 100 square feet.
3. The age of the trucks averaged about 4 years; 23 per cent was less than 2 years.
4. Most of the truckers were part-time farmer haulers and lived on the farm.
5. Truckers had been transporting livestock from less than a year to more than 15 years. The average was about 7½ years.
6. Approximately 60 per cent of the truckers had been farmers before they began trucking livestock. Another 20 per cent consisted of livestock buyers.
7. Money making motivated most of the men to start trucking livestock.
8. Nearly all the truckers were rated by the bankers as well liked in their communities and were reputed to be honest.
9. The estimated average weights of loads hauled by truckers were (a) about 4200 pounds to local points and (b) 7000 pounds to terminal markets.
10. Hogs constituted the most important species trucked, 65 per cent of the loads hauled being loaded with hogs.
11. About 55 per cent of the truck loads hauled was straight; that is, contained only one species of livestock.
12. As an average, about 45 per cent of the loads was obtained at one stop.
13. The number of stops required to obtain an average load of 5000 pounds averaged about three for all areas.
14. The truckers obtained 50 per cent of their business from an area of approximately 32 square miles.
15. Most of the trucking (59 per cent) was to terminal markets.
16. Although the truckers hauling livestock transported other commodities, they averaged 80 per cent of their trucking income from hauling livestock.
17. Partitioning or marking or both were used by most truckers to identify livestock.
18. Canes were used by 60 per cent of the truckers; only 16 per cent used flapjacks or slappers of some sort.
19. In the opinion of truckers, if trucked livestock is bruised, it is due to beating or rough handling.
20. About 60 per cent of the truckers carried liability and property damage insurance; 47 per cent, cargo insurance; and 27 per cent, crippled and dead insurance.
21. The truckers estimated their operating cost per mile to be 8.75 cents for 1½-ton trucks and 9.6 cents for all trucks.
22. About 75 per cent of the truckers in the four areas was hauling livestock for rates. The remainder was buying.
23. The rates for trucking livestock varied greatly between areas and within areas (Tables 31-34).
24. The rates for trucking livestock to local points were charged on a per-trip basis, varying from $1.00 to $4.00 depending on the distance.
25. The truckers of the four areas wanted to see rates for trucking hogs increased 24 per cent, for cattle 22 per cent, for calves 6 per cent, and for lambs 9.5 per cent.
26. Thirty-two per cent of the truckers thought rates were high enough to enable them to buy a new truck when the old one wore out, 45 per cent thought not, and the balance was undecided.
27. When trucking rates for Cincinnati and Cleveland are averaged, they show a steady decline for the past 2 years. Sheep and hog rates dropped most at Cincinnati and hog rates most at Cleveland.